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Therefore, this

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## United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America for the term set forth below, subject to the payment of maintenance fees as provided by law.

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Commissioner of Patents and Trademarks

Marcia de Campbeer-Jones



## United States Patent [19]

Holmes et al.

**Patent Number:** 

6,026,679

**Date of Patent:** 

Feb. 22, 2000

[54] METHOD TO INFER ENGINE COOLANT TEMPERATURE IN CYLINDER HEAD TEMPERATURE SENSOR EQUIPPED **VEHICLES** 

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[21] Appl. No.: 09/037,508

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Mar. 10, 1998 [22] Filed:

[51] Int. Cl.<sup>7</sup> ...... G01L 3/26; G01K 1/08; B60Q 1/00; F01P 5/14

340/449; 123/41.15

123/41.15; 340/449, 439; 374/144, 145

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Primary Examiner-William Oen Attorney, Agent, or Firm-Steven A. Maynard

**ABSTRACT** 

The present invention provides a method of inferring the engine coolant temperature in cylinder head temperature sensor equipped vehicles including the steps of measuring the cylinder head temperature, calculating the engine coolant temperature from the measured cylinder head temperature as a function of at least one vehicle operational state, generating a signal for the calculated engine coolant temperature, and sending the generated signal to a display.

18 Claims, 2 Drawing Sheets

